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Chiekering, John White

Catalogue of phaenogamous and vascular plants collected during the summers of 1873 and 1874 in Dakota and Montana

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Bull. U. S. Geol. & Geogr. Surv. vol. IV. (1878)

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ART. XXXIV.—CATALOGUE OF PHÆNOGAMOUS AND VASCULAR CRYPTOGAMOUS PLANTS COLLECTED DURING THE SUMMERS OF 1873 AND 1874 IN DAKOTA AND MONTANA ALONG THE FORTY-NINTH PARALLEL BY DR. ELLIOTT COUES U. S. A.: WITH WHICH ARE INCORPORATED THOSE COLLECTED IN THE SAME REGION AT THE SAME TIMES BY MR. GEORGE M. DAWSON.

By Prof. J. W. Chickering.

[The present article is based primarily upon the collection of plants made by me during my connection with the United States Northern Boundary Commission. Those collected in 1873 were secured along the northern border of Dakota, in the valleys of the Red River of the North and of the Souris or Mouse River; and notably at Pembina, Dak. The collecting season of 1874 was along the northern border of Montana, and in the Rocky Mountains, at latitude 49° N.

With the species represented in my own collection, Professor Chickering has, at my suggestion, incorporated those procured by my colleague of the British contingent of the Survey, as published by Mr. Dawson in his report (8vo, Montreal, 1875, pp. 351–379); thereby presenting a fair idea of the flora of the belt of country surveyed by the Boundary Commission. The species not represented in my collection, but derived from Mr. Dawson's list, are marked with the asterisk (*).

For papers on other portions of my collections, see this Bulletin, this Vol., No. 1, pp. 259–292; No. 2, pp. 481–518; No. 3, pp. 545–661; No. 4, pp. 777–799.—Ed.]

This catalogue comprises 692 species, besides quite a number of varieties, and is of much value and interest, not so much for the number of new species enumerated as for the information supplied respecting the range of many species known to be common farther east, west, or south.

A hasty comparison gives about 390 species found in New York or New England, about 80 distinctively Western in their habitat, and about 215 which belong on the plains and the Rocky Mountain region.

The *Leguminosæ* and the *Compositæ* are, of course, very largely represented, and exhibit a number of species peculiar to the region. The fact that but few collections were made previous to June will explain the absence of many spring flowers, which, from the character of the flora of summer, we should expect to find on that parallel.

Allium stellatum, Nutt., *Anemone Pennsylvanica*, L., and *Campanula rotundifolia*, L., var. *linifolia*, were noticed as so abundant on the prairie as to give character to the landscape.

Yucca angustifolia, Nutt., was collected along the Missouri River, probably reaching here its northern limit.

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The species common to this region and the East show, for the most part, the effect of the drier climate and the scorching sun of the plains in smaller, thicker, more hirsute leaves.

Among the *Cactaceæ* but two species are found, *Mammillaria vivipara* and *Opuntia Missouriensis*, quite abundant along the central region, from 103° to 111° west longitude, limited very abruptly by increasing moisture of soil and climate.

Salicornia herbacea and *Rumex maritimus* suggest the saline character of the soil, and flourish as luxuriantly as if the sea still washed those inland shores.

The paucity in species of trees, excepting *Coniferæ*, is in striking contrast to the variety of the East, and may in part arise from the fact that so many trees are out of flower before the beginning of June.

The *Orchidaceæ* would naturally be poorly represented.

Carices and *Gramineæ* are quite abundant and interesting, while *Filices* make but a scanty display.

Doubtless a careful examination of certain localities through the entire season would add many species to the list, but the present catalogue serves very well to convey to the botanist a good idea of the characteristic flora of the 49th parallel.

RANUNCULACEÆ.

1. *Clematis verticillaris*, DC.
   1874. July, August. Frenchman's Creek to Rocky Mountains.
2. *Clematis ligusticifolia*, Nutt.
   1874. July. Along Frenchman's Creek.

*3. *Anemone alpina*, L.

*4. *Anemone multifida*, DC.

*5. *Anemone nemorosa*, L.

*6. *Anemone parviflora*, Mx.

7. *Anemone patens*, L., var. *Nuttalliana*, Gray.
   1873. July, August. Between Pembina and Mouse River. Apparently an autumnal inflorescence, the buds and flowers appearing with the mature leaves.
8. *Anemone Pennsylvanica*, L.
   1873. July. Pembina. Very abundant.
   1874. July. Prairie near Milk River.

*9. *Thalictrum cornuti*, L.

10. *Thalictrum dioicum*, L.
    1873. July. Pembina. Very common, on the prairie.
11. *Thalictrum purpurascens*, L.
    1873. July, August. Pembina and along Mouse River.

*12. *Ranunculus abortivus*, L.

*13. *Ranunculus affinis*, R. Br.
Ranunculus affinis, R. Br., var. *cardiophyllus*.
1873. July. Pembina.
14. *Ranunculus aquatilis*, L., var. *trichophyllus*.
1873. August, September. Mouse River.
14ª. *Ranunculus aquatilis*, L., var. *capillaceus*.
1874. July. Frenchman's Creek.
15. *Ranunculus cymbalaria*, Pursh.
1873. July. Pembina. In company with *Lemna trisulca*.
1874. August. Rocky Mountains. On wet prairie.
*16. *Ranunculus Flammula*, L., var. *reptans*.
*17. *Ranunculus hispidus*, Mx.
*18. *Ranunculus Purshii*, Rich.
*19. *Ranunculus pygmæus*, Wehl.
20. *Ranunculus repens*, L.
1873. July. Pembina. Very hirsute.
1874. July. Frenchman's Creek.
*21. *Ranunculus rhomboideus*, Gold.
*22. *Myosurus minimus*, L.
*23. *Caltha palustris*, L.
*24. *Coptis trifolia*, Salisb.
*25. *Aquilegia Canadensis*, L.
*26. *Aquilegia flavescens*, Watson.
27. *Aquilegia vulgaris*, L., var. *brevistyla*.
1873. July. Pembina.
*28. *Delphinium azureum*, Mx.
29. *Actæa spicata*, L., var. *rubra*.
1873. July. Pembina and along Mouse River.
1874. August. Rocky Mountains. In fruit.

MENISPERMACEÆ.

*30. *Menispermum Canadense*, L.

BERBERIDACEÆ.

*31. *Berberis* (*Mahonia*) *aquifolium*, Pursh.

NYMPHACEÆ.

*32. *Nuphar advena*, Ait.

SARRACENIACEÆ.

*33. *Sarracenia purpurea*, L.

PAPAVERACEÆ.

*34. *Sanguinaria Canadensis*, L.

FUMARIACEÆ.

*35. *Corydalis glauca*, Pursh.
*36. *Corydalis aurea*, Willd.

CRUCIFERÆ.

*37. *Nasturtium palustre*, D. C.
*38. *Nasturtium tanacetifolium*, Hook.
*39. *Arabis hirsuta*, Scop.
40. *Arabis lyrata*, L.
1874. August. Base of Rocky Mountains. In fruit.
*41. *Arabis perfoliata*, Lam.
42. *Erysimum cheiranthoides*, L.
1873. July. Pembina.
1874. July. Missouri Coteau to Milk River.
43. *Erysimum asperum*, DC.
1874. July. Frenchman's Creek. In fruit.
43[a]. *Erysimum asperum*, DC., var. *pumilum*.
1874. August. Near Milk River. With long pods, 4′.
*44. *Erysimum lanceolatum*, R. Br.
*45. *Sisymbrium brachycarpum*, Hook.
46. *Sisymbrium canescens*, Nutt.
1873. July. Between Pembina and Mouse River, on open prairie. A very canescent form.
47. *Stanleya pinnatifida*, Nutt.
1874. July. Frenchman's Creek.
*48. *Camelina sativa*, Crantz.
*49. *Capsella Bursa-pastoris*, Moench.
*50. *Thlaspi arvense*, L.
51. *Raphanus sativus*, L.
1873. July. Pembina.
*52. *Sinapis arvensis*, L.
*53. *Vesicaria didymocarpa*, Hook.
*54. *Vesicaria Ludoviciana*, DC.

CAPPARIDACEÆ.

55. *Cleome integrifolia*, T. & G.
1873. August. Mouse River.
1874. August. Milk River.
A very showy plant on dry sub-saline soil.
*56. *Polanisia graveolens*, Raf.

VIOLACEÆ.

*57. *Viola Canadensis*, L.
58. *Viola delphinifolia*, Nutt.
1873. July. Plains around Pembina.

*59. *Viola cucullata*, Ait.
60. *Viola pubescens*, Ait.
1873. July. Pembina. Woods.
*61. *Viola Nuttallii*, Pursh.
*62. *Viola pedata*, L.

DROSERACEÆ.

*63. *Drosera longifolia*, L.

HYPERICACEÆ.

*64. *Hypericum Scouleri*, Hook.

CARYOPHYLLACEÆ.

*65. *Silene antirrhina*, L.
*66. *Silene Douglasii*, Hook.
*67. *Silene longifolia*, Muhl.
68. *Arenaria lateriflora*, L.
1873. July. Pembina, in thickets.
69. *Arenaria stricta*, Mx.
1874. August. Milk River. In fruit.
*70. *Arenaria nardifolia*, Ledeb.
*71. *Arenaria pungens*, Nutt.
72. *Stellaria longifolia*, Muhl.
1873. July. Pembina.
*73. *Cerastium nutans*, Raf.
*74. *Cerastium oblongifolium*, Torr.

MALVACEÆ.

75. *Malvastrum coccineum*, Gray.
1873. August. Abundant along Mouse River on dry plains.
1874. July, August. Frenchman's Creek, Milk River.
76. *Sphæralcea acerifolia*, Nutt.
1874. August. Base of Rocky Mountains. In flower.

LINACEÆ.

77. *Linum perenne*, L.
1873. July, August, September. Common all the way on the plains from Pembina to Mouse River.
1874. Missouri Coteau to base of Rocky Mountains.
78. *Linum rigidum*, Pursh.
1874. July. Frenchman's Creek.

GERANIACEÆ.

*79. *Geranium Carolinianum*, L.
*80. *Geranium Fremontii*, Torr.

81. *Geranium Richardsonii*, F. & M.
1874. August. Along Milk River.
81[a]. *Geranium Richardsonii*, F. & M., var. *incisum*.
1874. July. Frenchman's Creek.

OXALIDACEÆ.

82. *Oxalis stricta*, L.
1873. July. Pembina.

BALSAMINACEÆ.

*83. *Impatiens fulva*, Nutt.

ANACARDIACEÆ.

*84. *Rhus aromatica*, Gray.
85. *Rhus Toxicodendron*, L.
1873. July. Pembina. In flower.
1874. July. Missouri River.
*86. *Rhus glabra*, L.

VITACEÆ.

87. *Vitis cordifolia*, Mx., var. *riparia*.
1873. July. Pembina. Thickets.
*88. *Ampelopsis quinquefolia*, Mx.

CELASTRACEÆ.

89. *Pachystima myrsinites*, Raf.
1874. August. Base of Rocky Mountains.

RHAMNACEÆ.

*90. *Ceanothus velutinus*, Doug.
*91. *Rhamnus alnifolius*, L'Her.

SAPINDACEÆ.

*92. *Acer rubrum*, L.
93. *Negundo aceroides*, Moench.
1874. July. Near Fort Buford. Sugar is often made from its sap.

POLYGALACEÆ.

94. *Polygala alba*, Nutt.
1874. July. Prairie around Fort Buford.
*95. *Polygala polygama*, Walt.
*96. *Polygala Senega*, L.

LEGUMINOSÆ.

97. *Lupinus argenteus*, Pursh.
1874. August. Base of Rocky Mountains.
98. *Hosackia Purshiana*, Benth.
1874. June. Missouri River.

99. *Psoralea argophylla*, Pursh.
    1873. August. Dry prairie along Mouse River.
    1874. July. Missouri River.
*100. *Psoralea brachiata*, Doug.
101. *Psoralea hypogæa*, Nutt.
    1874. July. Milk River.
102. *Psoralea lanceolata*, Pursh.
    1874. July. Frenchman's Creek.
103. *Petalostemon candidus*, Mx.
    1873. July. Pembina.
    1874. June. Missouri River.
104. *Petalostemon violaceus*, Mx.
    1873. July. Pembina. Both this and the last species are very abundant on the dry prairie.
    1874. August. Frenchman's Creek.
105. *Amorpha canescens*, Nutt.
    1873. August. Open plains.
106. *Amorpha nana*, Nutt.
    1873. August. Plains near Turtle Mountain.
*107. *Astragalus aboriginorum*, Rich.
108. *Astragalus adsurgens*, Pall.
    1874. June. Prairie around Fort Buford.
109. *Astragalus bisulcatus*, Gray.
    1874. June. Prairie around Fort Buford.
*110. *Astragalus Bourganii*, Gray.
*111. *Astragalus cæspitosus*, Gray.
112. *Astragalus Canadensis*, L.
    1873. September. Along Mouse River. In fruit.
*113. *Astragalus caryocarpus*, Ker.
*114. *Astragalus flexuosus*, Doug.
115. *Astragalus hypoglottis*, L.
    1873. July. Plains near Pembina.
116. *Astragalus Missouriensis*, Nutt.
    1874. July. Missouri River.
117. *Astragalus pectinatus*, Doug.
    1874. July. Milk River.
118. *Astragalus pictus*, Gray.
    1874. June. Missouri River.
119. *Astragalus Purshii*, Doug.
    1874. July. Milk River. In fruit.
*120. *Astragalus tegetarius*, Watson.
121. *Oxytropis Lamberti*, Pursh.
    1874. June. Missouri River.
122. *Oxytropis splendens*, Dougl.
    1873. August. Dry prairie near Turtle Mountain. Leaflets strongly verticillate.
    1874. August. Milk River.

123. *Glycyrrhiza lepidota*, Nutt.
1873. August. Along Mouse River.
1874. July, August. Missouri River. Milk River.
124. *Hedysarum boreale*, Nutt.
1874. August. Base of Rocky Mountains.
*125. *Desmodium Canadense*, D. C.
126. *Vicia Americana*, Muhl.
1873. July. August, Pembina to Mouse River. Common in thickets and on the plains.
1874. June. Missouri River.
127. *Lathyrus ochroleucus*, Hook.
1873. August. Near Turtle Mountain. In thickets.
*128. *Lathyrus maritimus*, Big.
129. *Lathyrus venosus*, Muhl.
1873. August. In company with preceding species.
130. *Thermopsis rhombifolia*, Nutt.
1874. June. Missouri River.

ROSACEÆ.

*131. *Prunus Americana*, Marsh.
*132. *Prunus depressa*, Pursh.
*133. *Prunus Pennsylvanica*, L.
134. *Prunus Virginiana*, L.
1873. August. Mouse River. In fruit. Used as food by the Indians.
1874. July. Missouri River. In fruit.
135. *Spiræa salicifolia*, L.
1873. July. Pembina. Forming thickets.
1874. July. Milk River.
*136. *Spiræa betulifolia*, Pall.
137. *Agrimonia Eupatoria*, L.
1873. August. Thickets.
138. *Dryas octopetala*, L.
*139. *Geum macrophyllum*, Willd.
*140. *Geum triflorum*, Pursh.
141. *Geum strictum*, Ait.
1873. August. Near Turtle Mountain. With preceding.
1874. August. Milk River.
*142. *Sibbaldia procumbens*, L.
143. *Potentilla anserina*, L.
1873. July. Pembina.
1874. July. Frenchman's Creek.
144. *Potentilla arguta*, Pursh.
1873. July. Pembina. On prairie. Silky-pubescent.
1874. August. Milk River.

145. *Potentilla fruticosa*, L.
1874. August. Milk River. Abundant.
*146. *Potentilla effusa*, Doug.
*147. *Potentilla glandulosa*, L.
148. *Potentilla gracilis*, Doug.
1873. August. Second prairie plateau.
1874. August. Frenchman's Creek.
*149. *Potentilla hippiana*, Lehm.
150. *Potentilla Norvegica*, L.
1873. July. Pembina.
1874. August. Frenchman's Creek.
*151. *Potentilla palustris*, Scop.
152. *Potentilla Pennsylvanica*, L.
1873. August. Second prairie plateau.
*153. *Potentilla tridentata*, Ait.
154. *Fragaria Virginiana*, Ehrh.
1873. July. Pembina.
1874. August. Sweetgrass Hills, abundant.
*155. *Fragaria vesca*, L.
156. *Rubus strigosus*, Mx.
1874. July. Frenchman's Creek. Thickets.
157. *Rubus triflorus*, Rich.
1873. July. Pembina.
*158. *Rubus Nutkanus*, Moc.
159. *Rosa blanda*, Ait.
1873. July. Pembina. Everywhere on the prairie, especially on the edges of woods along the streams.
160. *Cratægus tomentosa*, L., var. *punctata*.
1873. July. Pembina. In flower.—September. Along Mouse River. In fruit.
*161. *Cratægus coccinea*, L.
162. *Pyrus sambucifolia*, Ch. & Sch.
1874. August. Base of Rocky Mountains.
163. *Amelanchier Canadensis*, L., var. *alnifolia*.
1873. July. Pembina. In fruit.
1874. July. Milk River.

SAXIFRAGACEÆ.

164. *Ribes aureum*, Pursh.
1874. July. Missouri River. In fruit.
*165. *Ribes Cynosbati*, L.
166. *Ribes floridum*, L'Her.
1873. July. Pembina. In thickets.
167. *Ribes hirtellum*, Mx.
1874. July. Along Frenchman's Creek.
*168. *Ribes rotundifolium*, Mx.

*169. *Ribes rubrum*, L.
*170. *Parnassia Caroliniana*, L.
171. *Parnassia fimbriata*, Banks.
1874. August. Milk River.
172. *Parnassia palustris*, L.
1874. July. Frenchman's Creek.
*173. *Saxifraga bronchialis*, DC.
*174. *Saxifraga Eschscholtzii*, Sternb.
*175. *Saxifraga Dahurica*, Pall.
*176. *Saxifraga heteranthera*, Hook.
*177. *Saxifraga vernalis*, Willd.
*178. *Heuchera cylindrica*, Doug.
*179. *Heuchera Richardsonii*, R. Br.
*180. *Leptarrhena pyrolifolia*, Brown.
*181. *Mitella nuda*, L.
*182. *Mitella pentandra*, Hook.
*183. *Tiarella unifoliata*, Hook.

CRASSULACEÆ.

*184. *Sedum Rhodiola*, DC.
*185. *Sedum stenopetalum*, Pursh.

HALORAGEÆ.

186. *Myriophyllum spicatum*, L.
1874. August. Along branch of Milk River and all the prairie pools.

ONAGRACEÆ.

187. *Gaura coccinea*, Nutt.
1874. July. Frenchman's Creek.
188. *Circæa alpina*, L.
189. *Epilobium coloratum*, Muhl.
1873. August. Near Turtle Mountain.
*190. *Epilobium palustre*, L., var. *lineare*.
*190[a]. *Epilobium palustre*, L., var. *albiflora*.
191. *Epilobium tetragonum*, L.
1874. July. Frenchman's Creek.
*192. *Epilobium origanifolium*, Lam.
193. *Epilobium angustifolium*, L.
1874. August. Branch of Milk River.
*194. *Epilobium latifolium*, L.
195. *Epilobium paniculatum*, L.
1873. August. Plains.
1874. August. Frenchman's Creek.
196. *Œnothera albicaulis*, Nutt.
1873. August. Mouse River.
1874. July. Missouri River.

*197. *Œnothera marginata*, Nutt.
198. *Œnothera biennis*, L.
1873. August. Dry plains between Pembina and Mouse River.
1874. July. Missouri River.
199. *Œnothera serrulata*, Nutt.
1873. August. With preceding species.
200. *Œnothera heterantha*, Nutt.
*201. *Œnothera leucocarpa*, Comien.
*202. *Œnothera pumila*, L.

LOASACEÆ.

203. *Mentzelia ornata*, Pursh.
1874. August. Base of Rocky Mountains.

CACTACEÆ.

204. *Mammillaria* (*Coryphantha*) *vivipara*, Haw.
1873. Extends eastward of the Missouri Coteau, in the valley of the Mouse River.
205. *Opuntia Missouriensis*, DC.
1873. September. Begins a little east of the Missouri Coteau, and is found all the way to the Rocky Mountains. Not in Red River Valley.

CUCURBITACEÆ.

206. *Echinocystis lobata*, T. & G.

UMBELLIFERÆ.

207. *Sanicula Marilandica*, L.
1873. July. Pembina.
*208. *Carum Gairdneri*, Benth. & Hook.
209. *Heracleum lanatum*, Mx.
1873. August. Dry prairie.
210. *Thaspium aureum*, Nutt.
1873. July. Pembina.
211. *Thaspium trifoliatum*, Gray.
1873. July. Pembina. Immature in open woods.
212. *Bupleurum ranunculoides*, L.
1874. August. Branch of Milk River.
213. *Cicuta virosa*, L.
1873. July. Pembina. This species exhibits forms running toward *C. maculata*.
1874. July. Frenchman's Creek.
214. *Cicuta maculata*, L.
*215. *Sium lineare*, Mx.

*216. *Osmorrhiza brevistylis*, DC.
217. *Osmorrhiza longistylis*, DC.
1873. July. Pembina.

ARALIACEÆ.

218. *Aralia nudicaulis*, L.
1873. July. Pembina. In woods.
*219. *Aralia hispida*, Mx.

CORNACEÆ.

*220. *Cornus Canadensis*, L.
*221. *Cornus paniculata*, L'Her.
222. *Cornus stolonifera*, Mx.
1873. July. Pembina. In flower.—August. Near Turtle Mountain. In fruit.
1874. July, August. Along river-bank.

CAPRIFOLIACEÆ.

*223. *Linnæa borealis*, Gron.
*224. *Symphoricarpus occidentalis*, R. Br.
1873. September. Mouse River. In fruit.—July. Pembina. In flowers. Occurring in masses in thickets.
1874. August. Sweetgrass Hills.
225. *Symphoricarpus racemosus*, Mx.
1874. August. Base of Rocky Mountains.
*226. *Lonicera involucrata*, Banks.
227. *Lonicera hirsuta*, Eaton.
1873. July. Pembina. In thickets.
*228. *Lonicera oblongifolia*, Muhl.
*229. *Lonicera parviflora*, Lam.
230. *Viburnum Lentago*, L.
1873. July. Pembina.
231. *Viburnum Opulus*, L.
1873. July. Pembina.
*232. *Diervilla trifida*, Mœnch.

RUBIACEÆ.

233. *Galium boreale*, L.
1873. July. Pembina. Very abundant on the prairie.
1874. June. Missouri River.—August. Rocky Mountains.
234. *Galium triflorum*, Mx.
1873. July. Pembina.
*235. *Galium trifidum*, L.
*236. *Houstonia ciliolata*, Torr.
*237. *Houstonia tenuifolia*, Nutt.

VALERIANACEÆ.

*238. *Valeriana sylvatica*, Rich.

COMPOSITÆ.

239. *Liatris punctata*, Hook.
1874. July. Prairie, near Frenchman's Creek.

240. *Liatris scariosa*, L.
1873. August. Second prairie.

241. *Brickellia grandiflora*, Nutt.
1874. August. Thickets. Milk River.

*242. *Eupatorium perfoliatum*, L.

243. *Eupatorium purpureum*, L.
1873. August. Thickets, on plains.

*244. *Nardosmia sagittata*, Pursh.

*245. *Aster carneus*, Nees.

246. *Aster lævis*, L.
1873. September. Mouse River, in thickets.
1874. August. Milk River.

*247. *Aster graminifolius*. Pursh.

248. *Aster Lamarckianus*, Nees.
1873. September. Mouse River.

*249. *Aster miser*, L.

*250. *Aster macrophyllus*, L.

251. *Aster multiflorus*, L.
1873. August. Mouse River Plain. Abundant. Specimens very rugose; leaves almost cuspidate.

252. *Aster ptarmicoides*, T. & G.
1873. August. Second prairie.

*253. *Aster salsuginosus*, Rich.

*254. *Aster tenuifolius*, L.
1873. August. Near Turtle Mountain.

*255. *Erigeron alpinum*, L.

*256. *Erigeron compositum*, Pursh.

257. *Erigeron glabellum*, Nutt.
1873. August. Mouse River Plain. Very abundant all over the prairie.

*258. *Erigeron Canadense*, L.

259. *Erigeron Philadelphicum*, L.
1873. July. Pembina.

*260. *Erigeron strigosum*, L.

261. *Erigeron pumilum*, Nutt.
1874. July. Prairies near Frenchman's Creek.

*262. *Machæranthera canescens*, Gray.

263. *Gutierrezia Euthamiæ*, T. & G.
1873. August. Mouse River, on dry plain.
1875. August. Frenchman's Creek.

*264. *Diplopappus umbellatus*, T. & G.
265. *Boltonia glastifolia*, L'Her.
1873. September. Mouse River.
*266. *Solidago Canadensis*, L
267. *Solidago gigantea*, Ait.
1873. July, August. From Pembina to Mouse River.
1874. August. Milk River.
*268. *Solidago Virga-aurea*, L.
269. *Solidago Virga aurea*, L., var. *humilis*.
1874. August. Rocky Mountains.
*270. *Solidago Virga-aurea*, L., var. *alpina*.
271. *Solidago incana*, T. & G.
1874. August. Milk River.
*272. *Solidago lanceolata*, Ait.
*273. *Solidago nemoralis*, Ait.
274. *Solidago Missouriensis*, Nutt.
1873. August. Mouse River.
*275. *Solidago stricta*, Ait.
*276. *Solidago serotina*, Ait.
277. *Solidago rigida*, L.
1873. August. Open prairie. Very abundant.
1874. August. Milk River.
*278. *Solidago tenuifolia*, Pursh.
*279. *Bigelovia graveolens*, Gr.
*280. *Bigelovia Howardii*, Gr.
281. *Aplopappus lanceolatus*, T. & G.
1874. August. Milk River.
*282. *Aplopappus Nuttallii*, T. & G.
283. *Aplopappus spinulosus*, DC.
1873. August. Mouse River. On very dry plains. Plant about six inches high.
284. *Grindelia squarrosa*, Dunal.
1873. August. Mouse River.
1874. August. Frenchman's Creek.
Very abundant on the plains. Used by the Indians as an anti-syphilitic, in decoction.
285. *Chrysopsis villosa*, Nutt.
1873. August. Dry plains.
1874. July, August. Prairies along Missouri River.
Chrysopsis villosa, Nutt., var. *hispida*.
1874. July. Missouri River.
*286. *Chrysopsis hispida*, Hook.
*287. *Iva axillaris*, Pursh.
288. *Ambrosia psilostachya*, DC.
1873. August. Mouse River. On dry plains.
*289. *Ambrosia trifida*, L., var. *integrifolia*.

*290. *Xanthium echinatum*, Murr.
291. *Xanthium strumarium*, L.
1874. August. Along Missouri and Milk Rivers.
*292. *Heliopsis scabra*, Dun.
293. *Heliopsis lævis*, Pursh.
1873. July, August. Pembina and westward. Abundant.
*294. *Echinacea purpurea*, Moench.
295. *Echinacea angustifolia*, DC.
1873. August. Dry plains.
*296. *Rudbeckia fulgida*, Ait.
297. *Rudbeckia hirta*, L.
1873. July. Pembina. Dry plains, as at the East.
298. *Rudbeckia laciniata*, L.
1873. August. Mouse River Plain, in thickets.
299. *Lepachys columnaris*, T. & G.
1873. August. Mouse River. Very abundant on prairies.
*300. *Helianthus giganteus*, L.
301. *Helianthus petiolaris*, Nutt.
1874. August. Dry prairie, near base of Rocky Mountains.
*302. *Helianthus rigidus*, Desf.
303. *Bidens frondosa*, L.
1873. July. Pembina.
*304. *Bidens Beckii*, Torr.
*305. *Bidens chrysanthemoides*, Mx.
306. *Gaillardia aristata*, Pursh.
1873. August. Mouse River Plain.
1874. August. Prairies along Frenchman's Creek.
*307. *Gaillardia pinnatifida*, Torr.
308. *Gaillardia pulchella*, Foug.
1874. July, August. Dry prairies along Frenchman's Creek.
309. *Coreopsis tinctoria*, Nutt.
1874. August. Along Frenchman's Creek.
310. *Hymenopappus luteus*, Nutt.
1874. July. Prairie near Missouri River.
311. *Actinella Richardsonii*, Nutt.
1874. July. Along Missouri River.—August. Along Milk River.
*312. *Actinella acaulis*, Nutt.
313. *Helenium autumnale*, L.
1873. August. Mouse River. Slightly pubescent.
314. *Achillea millefolium*, L.
1873. July. Pembina.
1874. June. Fort Buford.
315. *Artemisia cana*, Pursh.
1874. July. Dry plains, Missouri River.

316. *Artemisia Canadensis*, Mx.
1873. August. Mouse River. On dry prairie.
1874. July. Frenchman's Creek.
*317. *Artemisia Douglasiana*, Bers.
318. *Artemisia frigida*, Willd.
1874. July. Branch of Milk River.
*319. *Artemisia discolor*, Doug.
*320. *Artemisia dracunculoides*, Pursh.
321. *Artemisia Ludoviciana*, Nutt.
1873. September. Mouse River. Dry prairie. One of the species known as "sage".
1874. August. Milk River.
*322. *Gnaphalium polycephalum*, Mx.
*323. *Antennaria alpina*, Gaertn.
*324. *Antennaria dioica*, var. *rosea*, Gaertn.
*325. *Antennaria plantaginifolia*, Hook.
*326. *Arnica angustifolia*, Vahl.
*327. *Arnica longifolia*, Eaton.
*328. *Arnica Menziesii*, Hook.
*329. *Amida hirsuta*, Nutt.
330. *Senecio aureus*, L.
1874. August. Rocky Mountains.
330[a]. *Senecio aureus*, L., var. *Balsamitæ*.
1873. July. Pembina.
*331. *Senecio canus*, Hook.
*332. *Senecio Fremontii*, T. & G.
333. *Senecio eremophilus*, Hook.
1873. August. Prairie.
*334. *Senecio lugens*, Rich.
*335. *Senecio resedifolius*, Lessing.
*336. *Senecio triangularis*, Hook.
*337. *Cirsium altissimum*, Spring.
*338. *Cirsium undulatum*, Spring.
1873. September. Missouri Coteau.
1874. June. Plains near Fort Buford.
*339. *Cirsium muticum*, Mx.
340. *Troximon glaucum*, Nutt.
1874. July. Along Missouri River.
340[a]. *Troximon glaucum*, Nutt., var.
In company with the typical form.
341. *Troximon cuspidatum*, Pursh.
1873. July. Pembina and westward, on prairies.
*342. *Stephanomeria minor*, Nutt.
343. *Hieracium Canadense*, Mx.
1873. July. Pembina, in thickets.
1874. August. Along branch of Milk River.

*344. *Hieracium albiflorum*, Hook.
345. *Hieracium scabrum*, Mx.
1873. July. Pembina.
346. *Hieracium Scouleri*, Hook.
1874. August. Near Rocky Mountains.
*347. *Hieracium triste*, Willd.
*348. *Hieracium venosum*, L.
349. *Nabalus albus*, Hook.
1873. August. Mouse River Plain.
*350. *Nabalus Boottii*, DC.
351. *Nabalus racemosus*, Hook.
1873. September. Along Mouse River.
352. *Lygodesmia juncea*, Don.
1873. September. Mouse River. Abundant westward.
1874. July, August. Along Missouri and Milk Rivers.
*353. *Crepis elegans*, Hook.
*354. *Macrorhynchus glaucus*, Torr.
355. *Macrorhynchus troximoides*, T. & G.
1873. July. Pembina.
*356. *Taraxacum Dens-leonis*, Desf.
*357. *Lactuca elongata*, Muhl.
*358. *Mulgedium acuminatum*, DC.
*359. *Mulgedium leucophæum*, DC.
360. *Mulgedium pulchellum*, Nutt.
1873. August. Mouse River Plain.
1874. July, August. Along Missouri and Milk Rivers.

LOBELIACEÆ.

*361. *Lobelia Kalmii*, L.
362. *Lobelia spicata*, Lam.
1873. August. Second prairie.

CAMPANULACEÆ.

*363. *Campanula aparinoides*, Pursh.
364. *Campanula rotundifolia*, L., var. *linifolia*.
1873. July. Pembina. Everywhere on the prairie.
1874. July. Frenchman's Creek.

ERICACEÆ.

*365. *Vaccinium myrtilloides*, Hook.
366. *Arctostaphylos Uva-ursi*, Spring.
1874. July, August. Base of Rocky Mountains.
*367. *Gaultheria procumbens*, L.
*368. *Cassandra calyculata*, L.
*369. *Andromeda polifolia*, L.

*370. *Menziesia glanduliflora*, Hook.
*371. *Menziesia Grahami*, Hook.
*372. *Ledum latifolium*, Ait.
*373. *Pyrola elliptica*, Nutt.
*374. *Pyrola secunda*, L.
*375. *Pyrola rotundifolia*, L.
*376. *Pyrola asarifolia*, Mx.
*377. *Moneses uniflora*, Gray.
*378. *Monotropa uniflora*, L.

PLANTAGINACEÆ.

379. *Plantago eriopoda*, Torr.
1874. July. Dry prairie. Missouri River.
380. *Plantago Patagonica*, Jacq.
1874. July. Missouri River.
381. *Plantago Patagonica*, var.
With preceding.
*382. *Plantago major*, L.
*383. *Plantago Bigelovii*, Gray.

PRIMULACEÆ.

*384. *Androsace occidentalis*, Pursh.
*385. *Androsace septentrionalis*, L.
*386. *Dodecatheon integrifolium*, Mx.
*387. *Glaux maritima*, L.
388. *Lysimachia ciliata*, L.
1873. July, August. Pembina and westward, on the borders of thickets.
1874. July, August. Frenchman's Creek to Rocky Mountains.
*389. *Lysimachia thyrsifolia*, L.
*390. *Trientalis Americana*, Pursh.

LENTIBULACEÆ.

391. *Utricularia vulgaris*, L.
1874. August. Frenchman's Creek. Swamp.

SCROPHULARIACEÆ.

*392. *Chelone glabra*, L.
*393. *Pentstemon acuminatus*, Doug.
*394. *Pentstemon confertus*, Doug.
*395. *Pentstemon dasyphyllus.*
396. *Pentstemon gracilis*, Nutt.
1873. August. Dry prairie.
*397. *Pentstemon glaucus*, Grah.
*398. *Pentstemon Menziesii*, Hook.

*399. *Pentstemon procerus*, Doug.
*400. *Pentstemon pubescens*, Soland.
401. *Mimulus luteus*, L.
1874. August. Milk River.
*402. *Mimulus Lewisii*, Pursh.
*403. *Mimulus ringens*, L.
*404. *Gratiola Virginiana*, L.
*405. *Veronica Americana*, Schwein.
1874. August. Milk River.
*406. *Veronica alpina*, L.
*407. *Veronica peregrina*, L.
*408. *Gerardia purpurea*, L.
*409. *Castilleia coccinea*, Spring.
410. *Castilleia pallida*, Kunth.
1874. August. Base of Rocky Mountains.
410ª. *Castilleia pallida*, Kunth., var. *miniata*.
1874. August. Milk River.
*411. *Castilleia sessiliflora*, Ph.
*412. *Rhinanthus Crista-Galli*, L.
*413. *Pedicularis Canadensis*, L.
*414. *Pedicularis bracteosa*, Benth.
*415. *Melampyrum Americanum*, Mx.
416. *Orthocarpus luteus*, Nutt.
1874. July. Near Three Buttes.

VERBENACEÆ.

417. *Verbena bracteosa*, Mx.
1874. July. Frenchman's Creek.
*418. *Verbena hastata*, L.

LABIATÆ.

419. *Mentha Canadensis*, L.
1873. August. Along Mouse River.
1874. August. Frenchman's Creek.
*420. *Lycopus sinuatus*, Gray.
*421. *Lycopus Virginicus*, L.
422. *Monarda fistulosa*, L.
1873. August. Turtle Mountain.
422ª. *Monarda fistulosa*, var. *mollis*.
1874. August. Frenchman's Creek.
423. *Lophanthus anisatus*, Benth.
1873. August. Near Turtle Mountain.
424. *Dracocephalum parviflorum*, Nutt.
1873. August. Turtle Mountain.
*425. *Physostegia Virgiana*, Benth.

*426. *Brunella vulgaris*, L.
*427. *Scutellaria galericulata*, L.
*428. *Galeopsis Tetrahit*, L.
429. *Stachys aspera*, Mx.
1873. July. Pembina.
430. *Stachys palustris*, L.
1874. July. Missouri River and Frenchman's Creek.

BORRAGINACEÆ.

*431. *Onosmodium Virginianum*, DC.
432. *Lithospermum canescens*, Lehm.
1873. July. Pembina. Dry plains.
*433. *Lithospermum longiflorum*, Spreng.
*434. *Mertensia paniculata*, Don.
435. *Eritrichium Californicum*, DC.
1874. July. Frenchman's Creek.
436. *Eritrichium crassisepalum*, T. & G.
1874. August. Dry plains. Base of Rocky Mountains.
437. *Eritrichium leucophæum*, DC.
1874. August. Base of Rocky Mountains.
*438. *Eritrichium glomeratum*, DC.
*439. *Myosotis alpestris*, Schmidt.
*440. *Echinospermum floribundum*, Lehm.
*441. *Echinospermum Lappula*, Lehm.
*442. *Echinospermum patulum*, Lehm.
443. *Cynoglossum Virginicum*, L.
1873. July, August. Pembina and westward.

POLEMONIACEÆ.

444. *Phlox Douglassii*, Hook.
1874. July. Near Three Buttes.
*445. *Phlox canescens*, T. & G.
*446. *Phlox pilosa*, L.
447. *Collomia linearis*, Nutt.
1874. July. Dry prairies, Missouri River.
448. *Gilia minima*, Gr.
1874. July. Near Three Buttes.

CONVOLVULACEÆ.

449. *Calystegia sepium*, R. Br.
1873. July. Pembina.
1874. July. Missouri River.
450. *Calystegia spithamæa*, Pursh.
1873. July. Pembina, in woods.
1874. July. Missouri River.
451. *Cuscuta Gronovii*, Willd.
1873. August. Turtle Mountain. On *Ribes rotundifolium*.

SOLANACEÆ.

*452. *Physalis viscosa*, L.
453. *Solanum rostratum*, Dunal.
1874. July. Frenchman's Creek.
454. *Solanum triflorum*, Nutt.
1874. July. Prairies, Frenchman's Creek.

GENTIANACEÆ.

*455. *Halenia deflexa*, Griseb.
456. *Gentiana affinis*, Griseb.
1874. August. Milk River.
457. *Gentiana Amarella*, L.
1874. August. Rocky Mountains.
*458. *Gentiana acuta*, Mx.
*459. *Gentiana Andrewsii*, Griseb.
*460. *Gentiana crinita*, Froel.
*461. *Gentiana detonsa*, Fries.
*462. *Gentiana Menziesii*, Griseb.
463. *Gentiana puberula*, Mx.
1873. September. Mouse River.

APOCYNACEÆ.

464. *Apocynum androsæmifolium*, L.
1873. July. Pembina, in thickets.
465. *Apocynum cannabinum*, L.
1873. July. Very abundant in thickets. The fibre used by the Indians for cordage. It may eventually have some economic value.
1874. July. Missouri River.

ASCLEPIADACEÆ.

466. *Asclepias ovalifolia*, Dec.
1873. July. Pembina, in woods.
467. *Asclepias speciosa*, Torr.
1873. August. Plains near Turtle Mountain.
1874. July. Wet places along Frenchman's Creek.
468. *Asclepias verticillata*, L.
1873. July. Pembina.
*469. *Asclepias incarnata*, L.
*470. *Asclepias variegata*, L., var. *minor*, Hook.
*471. *Asclepias viridiflora*, Ell.

ARISTOLOCHIACEÆ.

*472. *Asarum Canadense*, L.

NYCTAGINACEÆ.

473. *Oxybaphus hirsutus*, Sweet. Var.
1874. July. Missouri River.
*474. *Oxybaphus nyctagineus*, Sweet.

CHENOPODIACEÆ.

*475. *Chenopodium album*, L.
476. *Chenopodium leptophyllum.*
1874. August. Dry plains west of Frenchman's Creek.
*477. *Blitum Bonus-Henricus*, L.
*478. *Blitum capitatum*, L.
479. *Blitum glaucum*, Koch.
1874. August. Milk River.
480. *Atriplex Nuttallii*, Watson.
1874. July. Missouri River.
481. *Atriplex Endolepis*, Watson.
1874. August. Frenchman's Creek.
*482. *Salicornia herbacea*, L.
483. *Suæda depressa*, Ledeb.
1873. July. Pembina, dry plains.
484. *Sarcobatus vermiculatus*, Torr.
1874. July. Saline soil. West of Frenchman's Creek.

AMARANTACEÆ.

*485. *Amarantus retroflexus*, L.

PARONYCHIÆ.

486. *Paronychia sessiliflora*, Nutt.
1873. September. Along Mouse River, on dry banks.
1874. August. Milk River.

POLYGONACEÆ.

487. *Polygonum amphibium*, L.
1874. July. Frenchman's Creek.
*487[a]. *Polygonum amphibium*, L., var. *terrestre.*
487[b]. *Polygonum amphibium*, L., var. *aquaticum.*
1873. August. Mouse River Plain, in wet places.
*488. *Polygonum aviculare*, L.
488[a]. *Polygonum aviculare*, L., var. *erectum.*
1874. August. Base of Rocky Mountains.
*489. *Polygonum cilinode*, Mx.
*490. *Polygonum dumetorum*, L.
*491. *Polygonum hydropiperoides*, Mx.
492. *Polygonum lapathifolium*, Ait., var. *incanum.*
1874. August. Frenchman's Creek.

*493. *Polygonum Pennsylvanicum*, L.
*494. *Polygonum tenue*, Mx.
*495. *Oxyria digyna*, Campd.
496. *Rumex maritimus*, L.
1874. August. Saline plains, west of Frenchman's Creek.
497. *Rumex salicifolius*, Weinm.
1873. July. Pembina.
1874. June, July. Missouri River. Frenchman's Creek.
498. *Rumex venosus*, Pursh.
1874. July, August. Frenchman's Creek and westward.
499. *Eriogonum flavum*, Nutt.
1874. July, August. Missouri River to Rocky Mountains.
500. *Eriogonum umbellatum*, Torr.
1874. July. Frenchman's Creek.
*501. *Eriogonum crassifolium*, Benth.

ELÆAGNACEÆ.

502. *Elæagnus argentea*, Pursh.
1873. August. Vicinity of Turtle Mountain, very common in patches.
*503. *Shepherdia argentea*, Nutt.
*504. *Shepherdia Canadensis*, Nutt.

SANTALACEÆ.

505. *Comandra pallida*, DC.
1874. June, July. Missouri River.
506. *Comandra umbellata*, Nutt.
1873. July. Pembina.

EUPHORBIACEÆ.

*507. *Euphorbia glyptosperma*, Engl.

URTICACEÆ.

508. *Humulus Lupulus*, L.
1873. August, September. Turtle Mountain to Mouse River.
509. *Urtica gracilis*, Ait.
1873. August. Second prairie.
1874. August. Frenchman's Creek.
510. *Laportea Canadensis*, Gaudich.
1873. July. Pembina.
511. *Ulmus Americana*, L.
1873. June. Pembina.

CUPULIFERÆ.

*512. *Corylus Americana*, Walt.
513. *Quercus macrocarpa*, Mx.
1873. Pembina, common, of large size along the river.

BETULACEÆ.

514. *Betula occidentalis*, Hook.
1874. August. Rocky Mountains.

SALICACEÆ.

515. *Salix lucida*, Muhl.
1873. August. Mouse River.
516. *Salix rostrata*, Richardson.
1873. July. Pembina, in fruit.
*517. *Salix nigra*, Marsh.
*518. *Populus balsamifera*, L., var. *candicans*.
*519. *Populus monilifera*, Ait.
*520. *Populus tremuloides*, Mx.

CONIFERÆ.

*521. *Pinus Banksiana*, Lambert.
*522. *Pinus contorta*, Doug.
*523. *Pinus resinosa*, Ait.
524. *Abies Douglasii*, Lindl.
1874. Rocky Mountains.
*525. *Abies alba*, Mx.
*526. *Abies Engelmanni*, Parry.
*527. *Abies nigra*, Torr.
*528. *Abies balsamea*, Marshall.
*529. *Larix Americana*, Mx.
*530. *Thuja occidentalis*, L.
531. *Juniperus communis*, L.
1874. August. Rocky Mountains.
532. *Juniperus Sabina*, L.
1874. August. Base of Rocky Mountains.
*533. *Juniperus Virginiana*, L., var. *procumbens*.

ARACEÆ.

534. *Arisæma triphyllum*, Torr.
1873. July. Pembina.
*535. *Calla palustris*, L.
*536. *Acorus Calamus*, L.

LEMNACEÆ.

537. *Lemna trisulca*, L.
1873. Pembina, with *Ranunculus cymbularia*.
*538. *Lemna minor*, L.

TYPHACEÆ.

*539. *Typha latifolia*, L.
540. *Sparganium simplex*, Huds.
1873. July. Pembina.
*541. *Sparganium eurycarpum*, Eng.
*542. *Sparganium natans*, L.

NAIDACEÆ.

543. *Potamogeton pectinatus*, L.
1873. August. Near Turtle Mountain.
544. *Potamogeton marinus*, L.
1873. August. Near Turtle Mountain.
*545. *Potamogeton natans*, L.
546. *Potamogeton perfoliatus*, L., var. *lanceolatus*.
1874. August. Near Turtle Mountain.
*547. *Potamogeton pusillus*, L.

ALISMACEÆ.

548. *Alisma Plantago*, L.
1874. July. Frenchman's Creek.
*549. *Triglochin maritimum*, L.
*550. *Triglochin palustre*, L., var. *elatum*.
551. *Sagittaria variabilis*, Eng.
1873. August. Mouse River.
1874. July. Frenchman's Creek.

ORCHIDACEÆ.

552. *Habenaria hyperborea*, R. Br.
1874. August. Rocky Mountains.
*553. *Habenaria bracteata*, R. Br.
*554. *Habenaria psycodes*, Gray.
*555. *Spiranthes cernua*, Rich.
*556. *Calopogon pulchellus*, R. Br.
*557. *Cypripedium pubescens*, Willd.

AMARYLLIDACEÆ.

*558. *Hypoxis erecta*, L.

IRIDACEÆ.

*559. *Iris versicolor*, L.
560. *Sisyrinchium Bermudiana*, L., var. *anceps*.
1873. July. Pembina.
*561. *Sisyrinchium mucronatum*, Mx.

SMILACEÆ.

562. *Smilax herbacea*, L.
1873. July. Pembina.

LILIACEÆ.

563. *Zygadenus glaucus*, Nutt.
1873. July. Pembina.
564. *Zygadenus Nuttallii*, Gray.
1874. June. Prairie along Missouri River.

*565. *Veratrum album*, var. *Eschscholtzii*, Gray.
*566. *Xerophyllum tenax*, Pursh.
*567. *Tofieldia glutinosa*, Willd.
568. *Prosartes trachycarpa*, Watson.
1874. August. Rocky Mountains.
569. *Clintonia uniflora*, Menz.
1874. August. Rocky Mountains.
*570. *Smilacina bifolia*, Ker.
571. *Smilacina trifolia*, Desf.
1873. July. Pembina, in woods.
572. *Smilacina racemosa*, Desf.
1874. August. Rocky Mountains.
573. *Smilacina stellata*, Desf.
1873. July. Pembina.
1874. June. Fort Buford.
574. *Polygonatum giganteum*, Dietrich.
1873. July. Pembina, shady bank of the river.
575. *Lilium Philadelphicum*, L.
1873. June, July. Pembina. Very abundant on the prairie.
576. *Calochortus Nuttallii*, T. & G.
1874. June. Fort Buford.
577. *Allium cernuum*, Roth.
1874. August. Base of Rocky Mountains.
578. *Allium Schœnoprasum*, L.
1874. August. Rocky Mountains.
579. *Allium stellatum*, Nutt.
1873. August. Mouse River Plain. Very abundant.
*580. *Allium reticulatum*, Frazer.
581. *Yucca angustifolia*, Nutt.
1874. July. Missouri River.

JUNCACEÆ.

*582. *Juncus acuminatus*, Mx.
*583. *Juncus alpinus*, var. *insignis*, Fries.
584. *Juncus Balticus*, Deth.
1873. July. Pembina.
*584[a]. *Juncus Balticus*, Deth., var. *montanus*.
*585. *Juncus Mertensianus*, Doug.
*586. *Juncus nodosus*, L.
*587. *Juncus xiphioides*, E. Mayer.
*588. *Luzula parviflora*, Desv., var. *melanocarpa*.

COMMELYNACEÆ.

589. *Tradescantia Virginica*, L.
1874. June. Prairies near Fort Buford.

CYPERACEÆ.

*590. *Eleocharis acicularis*, R. Br.
591. *Eleocharis palustris*, R. Br.
1873. August. Mouse River Plain.
1874. July. Missouri River.
*592. *Scirpus Eriophorum*, Mx.
593. *Scirpus fluviatilis*, Gray.
1873. July. Pembina.
594. *Scirpus maritimus*, L.
1873. August. Vicinity of Turtle Mountain.
1874. July. Missouri River.
595. *Scirpus pungens*, Vahl.
1874. July. Missouri River.
596. *Scirpus validus*, Vahl.
1873. July. Pembina.
1874. July. Missouri River.
*597. *Eriophorum latifolium.*
*598. *Eriophorum polystachyon*, L.
*599. *Carex adusta*, Boot.
1873. July. Pembina.
*600. *Carex alopecoidea*, Tucker.
*601. *Carex aperta*, Boot.
602. *Carex aristata*, R. Br.
1873. July. Pembina.
*603. *Carex atrata*, L.
*604. *Carex aurea*, Nutt.
*605. *Carex Douglasii*, Hook.
*606. *Carex festiva*, Dew.
*607. *Carex lanuginosa*, Mx.
1874. July. Missouri River.
*608. *Carex longirostris*, Torr.
*609. *Carex lupulina*, Muhl.
*610. *Carex marcida*, Boott.
*611. *Carex polytrichoides*, Muhl.
*612. *Carex Pseudo-Cyperus*, L.
613. *Carex retrorsa*, Schw.
1873. August. Mouse River.
*614. *Carex rosea*, Schk.
*615. *Carex Richardsonii*, R. Br.
*616. *Carex rigida*, Good.
*617. *Carex riparia*, Curtis.
*618. *Carex scirpoidea*, Mx.
*619. *Carex siccata*, Dew.
*620. *Carex straminea*, Schk.
*621. *Carex straminea*, Schk., var.
1873. July. Pembina.

*622. *Carex supina*, Wahl.
*623. *Carex stricta*, Lam.
*624. *Carex stenophylla*, Wahl.
*625. *Carex utriculata*, Boott.

GRAMINEÆ.

*626. *Zizania aquatica*, L.
*627. *Alopecurus alpinus*, Smith.
*628. *Phleum alpinum*, L.
*629. *Agrostis scabra*, Willd.
630. *Calamagrostis Canadensis*, Beauv.
1873. July, August. Pembina. Near Turtle Mountain.
631. *Calamagrostis stricta*, Trin. Var.
1873. August. Turtle Mountain.
1874. July. Frenchman's Creek.
*632. *Eriocoma cuspidata*, Nutt.
633. *Stipa comata*, Trin.
1873. August. Turtle Mountain.
634. *Stipa spartea*, Trin.
1874. July. Frenchman's Creek.
635. *Stipa viridula*, Trin.
1873. August. Second prairie.
1874. July. Frenchman's Creek.
636. *Spartina cynosuroides*, Willd.
1873. August. Mouse River.
637. *Spartina gracilis*, Roth.
1873. July. Turtle Mountain.
1874. July. Frenchman's Creek.
638. *Bouteloua oligostachya*, Torr.
1873. August. Turtle Mountain westward, forming compact sod, on dry prairie.
639. *Kœleria cristata*, Pers.
1873. August. Second prairie.
1874. July. Frenchman's Creek.
640. *Glyceria airoides*, Thurber.
1874. July. Missouri River.
*641. *Glyceria nervata*, Trin.
*642. *Catabrosa aquatica*, Beauv.
*643. *Poa alpina*, L.
644. *Poa alsodes*, Gray.
1873. July. Pembina.
*645. *Poa cæsia*, Smith, var. *strictior*.
646. *Poa compressa*, L.
1873. July. Pembina.
*647. *Poa flexuosa*, Muhl.
*648. *Poa pratensis*, L.

649. *Poa serotina*, Ehrh.
1873. July, August. Pembina. Turtle Mountain.
*650. *Festuca borealis*, Mert.
*651. *Festuca ovina*, L.
652. *Bromus ciliatus*, L.
1873. August. Mouse River.
1874. August. West of Frenchman's Creek.
653. *Phragmites communis*, Trin.
1873. August. Prairie, on borders of little pools.
*654. *Lepturus paniculatus*, Nutt.
655. *Triticum caninum*, L.
1873. August. Near Turtle Mountain, in thickets.
656. *Triticum repens*, L.
1874. July. Frenchman's Creek.
*657. *Triticum strigosum*, Steud.
658. *Hordeum jubatum*, L.
1873. July. Pembina, on prairie.
1874. July. Missouri River.
659. *Hordeum pratense*, Huds.
1874. August. West of Frenchman's Creek.
660. *Elymus Canadensis*, L.
1873. August. Turtle Mountain, thickets.
*661. *Elymus Canadensis*, var. *glaucifolius*.
662. *Elymus Sibiricus*, L.
1874. August. Rocky Mountains.
663. *Elymus Virginicus*, L.
1873. August. Near Turtle Mountain.
*664. *Danthonia spicata*, Beauv.
*665. *Avena striata*, Mx.
666. *Aira cæspitosa*, L.
1874. August. Base of Rocky Mountains.
667. *Phalaris arundinacea*, L.
1873. July, August. Pembina. Turtle Mountain, thickets.
1874. July. Frenchman's Creek.
*668. *Hierochloa borealis*, R. & G.
669. *Beckmannia erucæformis*, Host.
1874. July, August. Missouri River. Frenchman's Creek.
*670. *Panicum pauciflorum*, Ell.
671. *Panicum virgatum*, L.
1873. August. Mouse River.
*672. *Andropogon furcatus*, Muhl.
673. *Andropogon scoparius*, Mx.
1873. September. Mouse River, dry prairie.

EQUISETACEÆ.

674. *Equisetum arvense*, L.
1873. July. Pembina.

*675. *Equisetum hyemale*, L.
*676. *Equisetum lævigatum*, Braun.
*677. *Equisetum limosum*, L.
678. *Equisetum robustum*, Braun.
1874. June. Missouri River.

FILICES.

*679. *Polypodium vulgare*, L.
*680. *Phegopteris Dryapteris*, Fee.
*681. *Aspidium Lonchitis*, Swz.
*682. *Aspidium spinulosum*, Willd.
*683. *Onoclea sensibilis*, L.
*684. *Cystopteris bulbifera*, Bernh.
*685. *Cystopteris fragilis*, Bernh.
*686. *Woodsia Ilvensis*, R. Br.
*687. *Botrychium lunarioides*, Swz.
*688. *Botrychium Virginicum*, Swz.

LYCOPODIACEÆ.

*689. *Lycopodium complanatum*, L.
*690. *Lycopodium lucidulum*, Mx.
691. *Selaginella rupestris*, Spreng.
1874. August. Base of Rocky Mountains, and almost anywhere eastward, in some places covering the face of the country and forming much of the sod on sterile hills.

LICHENES.

692. *Evernia alpina.*
1874. August. Rocky Mountains.

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